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ABSTRACT

Findings from a study that examined ways in which principals implement new or revised curricula are presented in this paper, which focuses on how personal constructs influence the curriculum implementation process. Data about principals' implementation styles were obtained from interviews with 10 principals and 10 female teachers, inschool observations, and analysis of students' work. Findings indicate a high level of successful implementation. Principals were concerned about curricula meeting students' needs and therefore provided professional development, materials, instructional leadership, and conditions for a harmonious school climate. Four figures and an appendix containing the research questions are included. (58 references) (LMI)

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**Principals as Change Agents: Their Role in the
Curriculum Implementation Process**

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Principals as Change Agents: Their Role in the Curriculum Implementation Process

Abstract

The purpose of this study was to examine how principals proceed with the process of implementing new/revised curricula. An interpretive design facilitated data collection from principals and teachers in a school division.

The study revealed that principals are concerned about curricula meeting the needs of pupils and, therefore, spent a great portion of their time implementing the innovation, upgrading themselves and their staffs, providing materials, modelling instruction, modifying administrative structure, and providing leadership.

New curricula posed problems for integration into the regular school program. However, through various strategies, high levels of implementation and significant student improvements were observed.

Principals as Change Agents: Their Role in the Curriculum Implementation Process

The complex role of the principalship is changing (Dill 1984; Fullan 1987; Hord and Hall 1987). Recent research such as school effects studies (Clark, Lotto and Astuto 1984; Edmonds 1982; Purkey and Smith 1983; Leithwood and Montgomery 1982, 1986; also Fullan 1982, 1985, 1987) strongly suggest that the principal is becoming a crucial middle administrator and instructional leader in the school system, contrary to beliefs that the principal's role is largely administrative. This body of research further suggests that a strong relationship exists between instructional leadership and school effectiveness as defined by student achievement. More recent school effects studies, however, have produced conflicting results. For example, Grady, Wayson and Zirkel (1989) in a review of the school effects literature reported that no significant correlation existed between student achievement and principal effectiveness.

The literature on the principalship offers conflicting data on the role of the principalship. Montgomerie, McIntosh and Mattson (1988) stated that "the role of the principal today is defined by complexity, multiplicity, ambiguity, and change" (p. 112). Few studies have examined precisely what it is that principals do to manage the instructional program. Fewer still have reported on principals behaviour in managing instructional change. Yet principals, as heads of their schools, are

responsible for implementing the instructional program. This exploratory paper investigates what principals do in the curriculum implementation process as well as examines how their thought processes influence what they do.

Many studies on the principalship focus upon managerial behaviour (Clark et al., 1984), particularly how principals actually spend their time. It has been suggested (Boyd and Crowson, 1981; Bridges, 1982; Manasse, 1985) that these studies have been influenced by the work of Wolcott (1973) and especially that of Mintzberg (1973). Wolcott's work was an ethnographic study of a principal. Mintzberg's method includes structured observations.

Mintzberg's method utilizes structured observation to quantify work activities. The method tends to neglect some of the subtle aspects, contexts, symbols, culture, ethos, meanings and even spur of the moment one-time serendipitous activity that may have deep meaning and offer a better insight into the change process. As such, Mintzberg's technique has limited applicability for a study such as the one undertaken here.

The description of the nature of management work of the executives studied by Mintzberg was thought to resemble that of school principals - a hectic pace, variety, fragmentation, brevity, and control - hence the application of Mintzberg's concept to educational studies. As a consequence, the current belief that the principal is an instructional leader in the school does not appear to be widely supported in the literature

on principal managerial behavior. Morris et al. (1982) stated "we found that instructional leadership is 'not' the central focus of the principalsip" (p. 689). Andrews and Hearne (1988), Brubaker (1976), Edwards (1979), Knetz and Willower (1982), Martin (1980), Morris et al. (1981), Peterson (1977) and Sackney (1980), all characterized the principal's work by brevity, variety and fragmentation. March (1981) describes the principal as being more administrator than facilitator. Rallis and Highsmith (1986) frankly suggested that school management and instructional leadership are two different tasks that cannot be performed effectively by a single individual. Boyd and Crowson (1981) concluded that instructional leadership did not appear to be as important as organizational maintenance and pupil control; and Pinkney (1987) noted that principals feared the instructional program, and therefore, focused "more on mundane or trivial activities" (p. 131).

Andrews and Hearne (1988) found that principals believed that improvement of the educational program and evaluation of staff are the most important aspects of their job but they in fact spent the greatest block of their time in school management. Leithwood and Montgomery (1982) noted that less than 50% of elementary school principals actively work toward instructional or program improvement in their schools. In a later study, however, Leithwood and Montgomery (1986) rated instructional leadership of the principalsip to be more important than managerial or humanitarian behaviour.

While most studies suggest that principals are constrained by mundane administrative tasks, studies of educational change (Fullan 1982, 1985, 1987) also portray the principal as a key or pivotal person in the change process. This viewpoint is also current, for example, in Alberta (Alberta Education 1985) and Manitoba (Lee and Wong 1985). An overwhelming number of studies from school effects research suggest the importance of strong instructional leadership from the principal. (See, for example, Hallinger and Murphy 1985; Hurling, Hall and Hord 1982; Hord and Hall 1987; Leithwood and Montgomery 1982, 1986; Purkey and Smith 1983). These studies have led to a reconceptualization of the principalship. The study by Hallinger and Murphy (1985) revealed that "principals are more actively involved in managing curriculum and instruction than the literature leads the reader to expect" (pp. 232-233). Hallinger and Murphy commented that their "finding is at odds with results of observational studies, which suggest that elementary school principals tend to be relatively uninvolved in managing curriculum and instruction" (p. 236). They suggested that "the structured observation studies underestimate the instructional management behaviour that principals perform" (p. 236). And many of the studies on the principalship utilized this method. Hallinger and Murphy, drawing on the work of Greenfield (1982), Gronn (1982) and Pitner (1982), criticized structured observation and noted that the technique "does not adequately describe the substance of

managerial work" (p.236). Greenfield (1982), further observed that structured observation lack the qualitative data that adequately describes activities.

In Manitoba, during the last decade, much educational emphasis have been placed in implementing massive amounts of new or revised curricula introduced into the schools. It is assumed that the principal as an educational leader will play a pivotal role in the implementation of these curricula. Little, however, is known about the process whereby principals facilitate the implementation of these curricula. What is the nature of the intervention process? What are principals' assumptions, beliefs and expectations about knowledge, teaching and learning that influence the intervention process? How effective in facilitating implementation are those processes?

While research on implementation is relatively new, research on precisely what principals do and how their beliefs and expectations about teaching and learning impact upon the curriculum change process is limited (Begley and Leithwood 1989; Corbett and Rossman 1989; Fullan 1982; Hallinger and Murphy 1985; Moorhead and Nediger 1985). Corbett and Rossman (1989), Begley and Leithwood (1989), and Moorhead and Nediger (1989), explored the influence of principals values on their behaviour, but these studies lack "thick" descriptive data that can help guide educational practice. These studies are nevertheless insightful as researchers have theorized that the failure of the curricular reforms of the 1960's and 1970's was

due, not only to the heavy emphasis on rationality, but, also, to fundamental philosophical differences between proponents of change and implementors of change (Fullan 1982; Wezner 1981). The lack of specificity with regard to how the principal actually goes about the process of curriculum implementation makes it apparent that the need exists for further inquiry into this process.

The purpose of this study, therefore, is to examine how principals perceive and go about the process of implementing new or revised curricula in elementary schools; and to determine whether the process of implementation varied among principals and to what extent values, beliefs and assumptions about knowledge and knowing, teaching and learning about the 'world of the classroom' influenced such variations in the curriculum implementation process. In this study, curriculum implementation is defined as the process whereby new or revised curricula are introduced into schools thereby altering existing educational practice in order to achieve more effective learning outcomes for students.

METHOD

Sample

All elementary school principals from an urban-rural school division in Manitoba that was implementing six new and revised curricula were targeted for the study. Ten of the fourteen principals and ten female teachers randomly selected with one from each school constituted the sample.

Instrument

An interview schedule consisting of ten questions was developed and piloted with two principals and found to be suitable for the study (see Appendix). The schedule was developed on the basis of Werner's conceptual framework which is essentially an interpretive approach to curriculum implementation. The framework not only looks at the curriculum implementation process, but at how personal constructs - an individual's beliefs, values and assumptions - mediate the curriculum implementation process, for, it is precisely at this stage that the curriculum innovative process breaks down.

Hallinger and Murphy (1985) advocated the use of "qualitative methodologies to generate richer descriptive reports about how principals manage curriculum and instruction" (p. 238). Miles (1979) stated that the "need to develop grounded theory usually exists in tension with the need for clarity and focus" (p. 591). Lazarfeld and Barton (1971) observed that "a great deal of research must be of an exploratory nature, aiming at qualitative answers to such questions as the following: What goes on in a certain situation ...?" (p. 142). And finally, both Werner (1981) and Fullan (1982 emphasized that curriculum implementation is a social process, not an event. Fullan further noted that the principal was a key factor in this process.

Data Collection

The study adopted a two pronged approach:

- 1) What the principal says he does.
- 2) What the teacher says the principal does.

In addition, in-school observations on implementation were made at the time of the interviews and students' work were examined and analyzed for the purpose of cross referencing and validation.

Principals and teachers were interviewed individually in their offices or classrooms or other suitable locations by the researcher for approximately an hour and a half to two hours. Interviews were conducted during and after the school day. Where the interview with the teacher was conducted during regular school hours, the principal took over the class. Some principals commented that they followed this practice when teachers attended workshops or went on school visitations. This practice allowed the principals to be more directly involved in the classroom. Interviews were recorded for later transcription. In addition, a reflective remark sheet as suggested by Borg and Gall (1979) and Patton (1980) was used to record observations or opinions that lent insight into phenomena which normally would have been missed. This method improved the usefulness of the data and provided for more indepth analysis. For example, it was observed that almost all the principals had children's writings pinned to their office walls. Children in four schools were observed at the time of the interviews, happily going into the principals' offices to show off their writing or artwork; these were unsolicited efforts.

Data Analysis

Interview data were coded first into clusters of descriptive categories derived from the interview questions. The second level of analysis is more exploratory. Miles and Huberman (1984, p. 56) noted that the idea of this level is to indicate that a segment of the field notes illustrates an emergent leitmotiv or pattern that the analyst has deciphered while unravelling the meaning of local events and relationships.

Both Flanagan's (1954) "critical incident technique" and McCutheon's (1981) "interpretation" method were found useful for coding and analyzing the data. Flanagan's "critical incident technique is essentially a procedure for gathering certain important facts concerning behaviour in defined situations" (p. 335). The procedure includes grouping "any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act" (p. 327). McCutheon's method includes "the forming of patterns accounting for the affiliation of separate phenomena to one another" (p. 6). These two procedures are inclusive and supportive of the grouping and clustering process.

Subjects' responses from each of the questions were examined, reduced and grouped according to the procedure described above in order to arrive at a manageable and presentable summary. See, for example, Table 1. Reduction was necessary because of the massive amounts of interview data. The same procedure was used for both principals and teachers

responses. By having both groups respond to the same questions and utilizing the same procedure for data analysis, a sort of convergent validity was built into the design in order to reduce response effects and biases. The critical incident technique, as well as the reflective remark sheet, was found to be useful in checking upon validity of responses. Flanagan (1954) noted that with the critical incident technique "a fairly satisfactory degree of objectivity can be achieved in placing the incidents in the defined categories" (p. 335).

The second level of data analysis was more analytical and exploratory. At this level the researcher examined the summarized data seeking for patterns and relationships that were emerging and also began to speculate about these and their relationships to the available theoretical literature regarding the role of the principal in curriculum implementation.

As the analysis of the data progressed and patterns among principals' behaviour emerged, these were grouped and compared to leadership styles, decision making and so on as identified in the theoretical literature on administration as well as the research/theoretical literature on curriculum implementation. The reason for this procedure is described below.

Again, Flanagan's and McCutcheon's methods proved helpful in the second level of analysis. Flanagan's (1954) second step in analyzing data is the drawing of inferences

in light of relevant established principles of human behaviour and of the known facts regarding background factors and conditions operating in the specific situation. From this total picture hypotheses are

formulated (p. 335).

McCutcheon (1981) noted that the second level of data analysis include

the interpretation of social meaning of events through 'thick description' or qualitative background; and the relating of the particulars of the setting to the external considerations such as theories (p. 6).

The picture that emerged from the clustering and analysis of the data was that principals in this school division have a high level of involvement in the process of curriculum implementation, contrary to what the literature on instructional management says. However, substantial variations emerge on the level and nature of involvement.

RESULTS AND DISCUSSIONS

The major findings of this study are summarized along the lines of the research questions.

Principals' Perceptions of Curriculum

Table 1 summarizes principals perceptions of curriculum.

Table 1

- 1) (Curriculum) - a guide for teachers to use in their classrooms to meet the needs and interests of their pupils but pretty broad for the teachers' initiatives.
- 2) Some guides as to what some of the core activities that can be covered at each grade level ... we should be relying a little bit more upon these guides and less on the so called good teaching abilities of the teachers ... we should be relying on that expertise (i.e. the expertise of the developers as expressed in the guides).

- 3) Should meet the needs of various individuals ... get away from the facts, more on understanding the inter-relationships with people Look at how people interact, think ... respond ... agree, disagree and why ... why causes people to live in the way they do.
- 4) I feel pleased at how things are going in the new curriculum. I think they are relevant (to students' needs). We're happy that they are there.
- 5) The curriculum fits with what we want to do - meeting needs of kids. It's a guide to teach and teachers could follow reasonably closely.
- 6) Long ago it was this text, that page, confederation. Whereas now, there are lots of new approaches and ideas (based on new learning theories) for related activities in the new curriculum which I like and which was needed.
- 7) Curriculum is the best possible vehicle to provide the best education for children. I would say right now that our children are getting a tremendous education and it's all related to the curriculum guides and training of teachers.
- 8) We are using and tapping the resources of the child in terms of his learning and learning naturally With my own staff, I was agitating for change long before ... so when this new curriculum (meaning the Language Arts) came out, it was like a godsend to me.
- 9) I think we're on the right track by the whole language philosophy (in the Language Arts). I have agreed with the

revision ... I think it's necessary.

- 10) It's a guide in terms of core content ... I think there is tremendous room to maneuver and I'm very suspicious of any teacher that starts on page 3 and end on page 7 and work on nothing outside of that ... I think it's more justified. It's focused on the youngster. That, I think is very important.

The findings in Table 1 revealed that all ten principals in this study felt that curriculum should serve the needs and interests of pupils. Teachers shared this perception as well. All principals felt that some of the schools' curricula needed changing, for example, English Language Arts.

There were variations in principals' beliefs, however; eight principals had what Bussis et al. (1976) described as a "deeper" conception of curriculum. Principals felt that a curriculum should be easily "unpacked" and flexible enough to accommodate the varying needs of students, and should not be too rigidly adhered to, but amendable through critical, analytical reflection. This was a fundamental value underlying the new curricula and had a high measure of congruency with the beliefs of most principals in this study. These beliefs impacted positively upon implementation efforts and pedagogic practices. Two principals felt that curriculum should be implemented as designed as it represented the ultimate product of expertise. The latter group, saw curriculum more as end products.

This pattern of behaviour is consistent with those of similar principals as reported by Bussis et al. (1976). Further, the perception by principals of the need for change was thought to influence principals' actions that contributed to implementation success in this study.

**Principals Feelings of the Innovation and
their Implementation Behaviour**

Principals' feelings about the new programs could be viewed from a number of perspectives:

- a) There was a major fundamental change in philosophy and methodology of the English Language Arts, with spillover implications in other curricula areas.
- b) New content was needed and added, for example, in the Social studies, or Health; however, the new curriculum, Computer Awareness, took some time to be accepted.
- c) Much of the revised curricula was viewed to be merely a restructuring of activities to facilitate instruction, and a reflection of changing pedagogic practices.
- d) The new and revised curricula were viewed as being more open and more flexible, though some aspects of the Social Studies were viewed as being too detailed; some principals, as well as a few teachers, felt that the major omission in the English Language Arts was in the area of grammar. Others felt that grammar was subsumed in the curriculum.

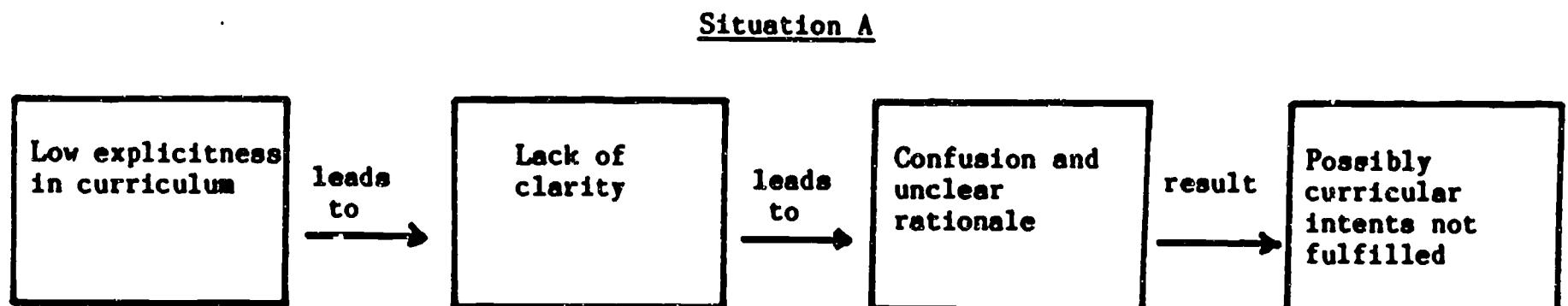
This researcher felt that the above problem was structural, one of clarity. This problem has been identified in

the literature on change (Rogers and Shoemaker 1971) and discussed by Fullan (1982). Lack of clarity led to variations and modifications of the suggested holistic methodology in this curriculum by a few principals. A major form of curricula modification was observed to be taking place in many of the schools in the area of grammar instruction. However, where the new programs were congruent with values of the implementors, implementation as intended was facilitated. In most instances this was normally the case, but not without major interventions by principals who attempted to explain and convince, through numerous sessions with staffs, exploring the rationales and philosophies behind the new curricula (See Figure 1). In fact Ross (1981), Leithwood and Montgomery (1982) suggested such a strategy. Principals intervened more directly, or through second change facilitators, either teachers or consultants, in clarifying the rationales, new philosophy and attendant pedagogy, and in instructional leadership, than is reported in the research literature. The proactive interventions by most principals noted in this study are similar to that found by Hallinger and Murphy (1985) and, this intervention, a function of their beliefs, facilitated the implementation process shown in Figure 1.

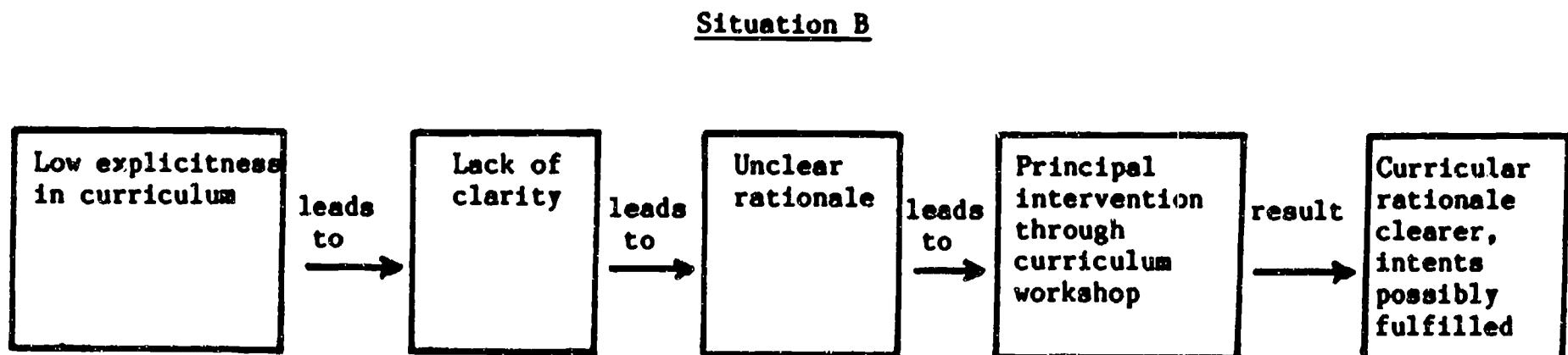
Insert Figure 1 about here

Variations among the principals as implementors emerged along the continuum of the hypothesized styles of Hord and Hall (1987), initiators, managers and responders. This researcher

FIGURE 1 Clarification of the Rationale for Change
through Principal's Intervention



Situation A represents no intervention by principals, resulting in possible modification of curriculum implementation or surface implementation.



Situation B represents intervention by principals, resulting in clearer curricular intents/rationales, implementation as intended and possibly deeper implementation.

felt that at least half of the principals in this study appeared to be initiators as described by Hord and Hall (1987), or as instructional leaders as described by Leithwood and Montgomery (1982, 1986). The other half appeared to be managers and all showed varying degrees of instructional leadership.

Implementation Strategy

The major implementation strategy utilized by all principals in this study was collegial, collaborative, participatory, shared decision making. However, some principals who held "deep" feelings about curriculum were more open, allowing true collegial, participatory planning and decision making, while a few others were more structured, promoting participatory planning and collegial decision making, but retaining all final decisions reminiscent of more managerial types of behaviors. They felt that this was not only their responsibility but also their jurisdiction as well. Nevertheless, this practice did not appear to affect the climate of the schools, as principals were aware of the effects of bureaucratic behaviors on meaningful participation.

Within this general overall strategy, however, a number of contextual factors influenced actual implementation. For example, half the principals taught half-time and were constrained in their efforts at demonstrating instructional leadership; they, however, became more active facilitators, or coordinators and relied upon other personnel to help carry the program. All principals acquired resources and facilities for

their staff, and provided professional development opportunities, as well as creating a harmonious climate for implementation. One of the major strategies already discussed (Fig. 1) involved interventions by principals in order to allay concerns and to familiarize teachers with the new philosophy and pedagogic thrust of the new and revised curricula. This strategy was recommended by Ross (1981) and Leithwood and Montgomery (1982). Collegial, collaborative, participatory, shared decision making has been lauded in the literature for example, Argyris (1971), Blau and Scott (1962), Fullan (1982, 1985), Leithwood and Montgomery (1982), and numerous others. However, some like Sackney (1980), have cautioned that collaborative decision making is problematic, a factor recognized in this study by one or two of the principals. Collaborative decision making, nevertheless, was the norm observed in this study.

Pedagogic Practices and Changes

The main pedagogic practice that changed resulted from the underlying philosophy of the new curricula, and the way principals viewed curriculum, children, and the education process. The most dramatic change came about in the area of the English Language Arts, but had carryover effects in the other curricula areas. The holistic philosophy of the English Language Arts meant that teachers had to change their instructional strategies. Children were no longer regarded as passive recipients of factual information, but freer,

reflexive, inquiring individuals. The greatest tensions were encountered in the area of grammar instruction. Three older teachers and at least two principals retained traditional grammar instruction, but utilized the holistic methodology for other areas. This problem of curriculum adaptation has been well documented in the research literature, for example, the Rand Studies by Berman and McLaughlin (1976). But the literature does not provide the "thick" data about how this process is negotiated or resolved. Within the framework of the collegial approach, principals and teachers were observed to be bargaining and negotiating an acceptable order that facilitated the implementation process.

A number of principals made interventions individually or with groups of teachers in informal collegial sessions examining the philosophy of the new curricula, or modelling instruction with peer evaluation and feedback sessions. This appeared to be a major strategy that demonstrated instructional leadership with new pedagogic practices. A principal described this activity as one of the most important carried out in the implementation process. Such educative processes have been noted in the research literature as important contributory factors for successful implementation. (Fullan 1982; Gross et al. 1971; Leithwood and Montgomery 1982; Ross 1981; Rubin 1987 among others). Principals also provided opportunities for themselves and their staffs (see Figures 2 and 3) for school visitations, attendance at conferences,

training sessions, and other professional development activities such as being members of professional organizations, all contributory factors for successful implementation as noted by Rubin (1987) and Fullan (1987). Teachers also, on their own volition, participated in numerous professional development activities to enhance their teaching for better implementation. On the whole, a high sense of efficacy was observed in the schools.

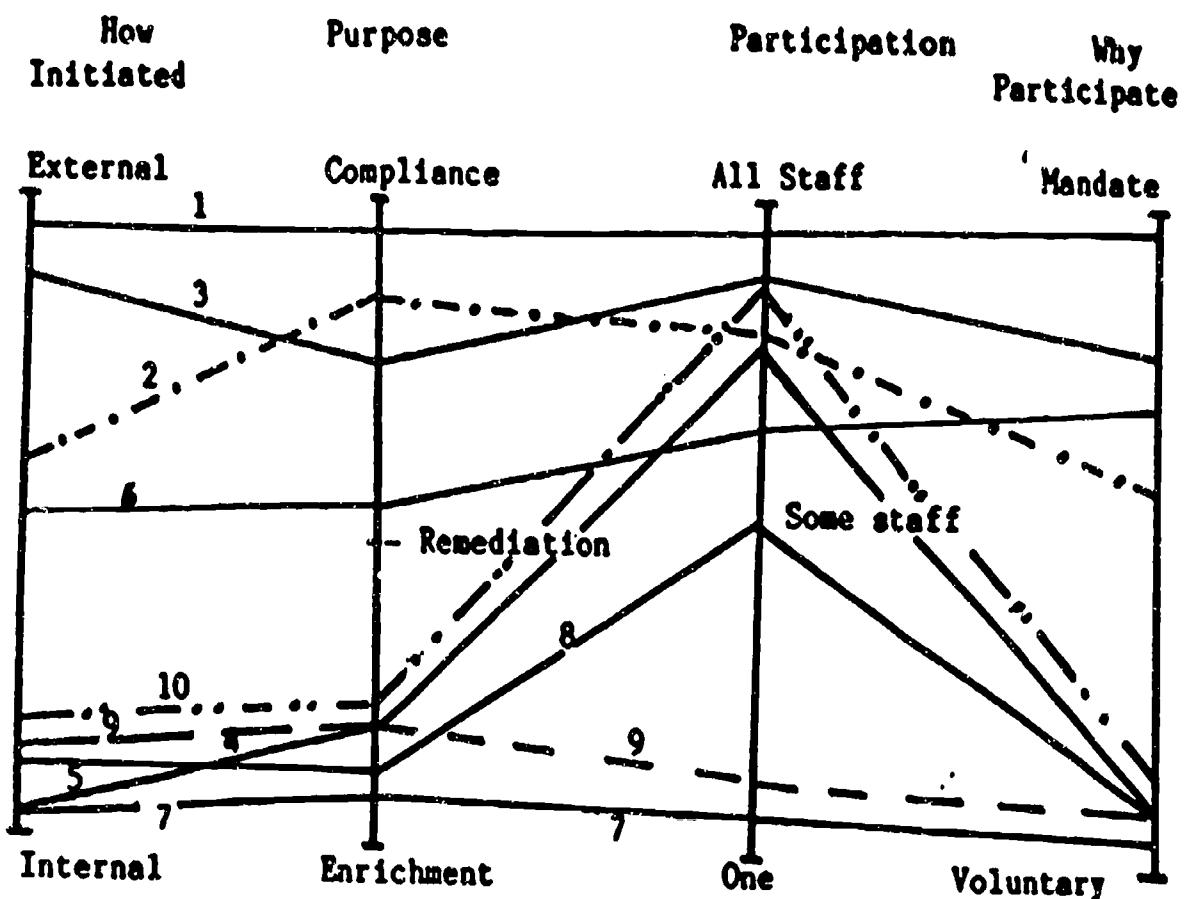
Insert Figures 2 and 3 about here

Organizational Changes

At the school level, all principals modified organizational structures to varying extents to facilitate implementation. In the smaller schools where principals taught half-time, some delegation of authority was observed, but because of the small size of these schools (in some instances around five or six staff members), operations were carried out largely in a collegial, informal, friendly atmosphere. In the larger schools, however, it was necessary to modify organizational structures for a smoother operation, through the creation of area committees with specified responsibilities (See Figure 4). Because of the more complex nature of the larger schools, the creation of these structures was necessary for successful implementation a factor observed by Gross et al. (1971), and Lee and Wong (1985). Theoretically, they appeared more formal and bureaucratic, but in fact, operated in a collegial climate.

FIGURE 2

Staff Development Activity Profile For Principals With Mandated Curricula.



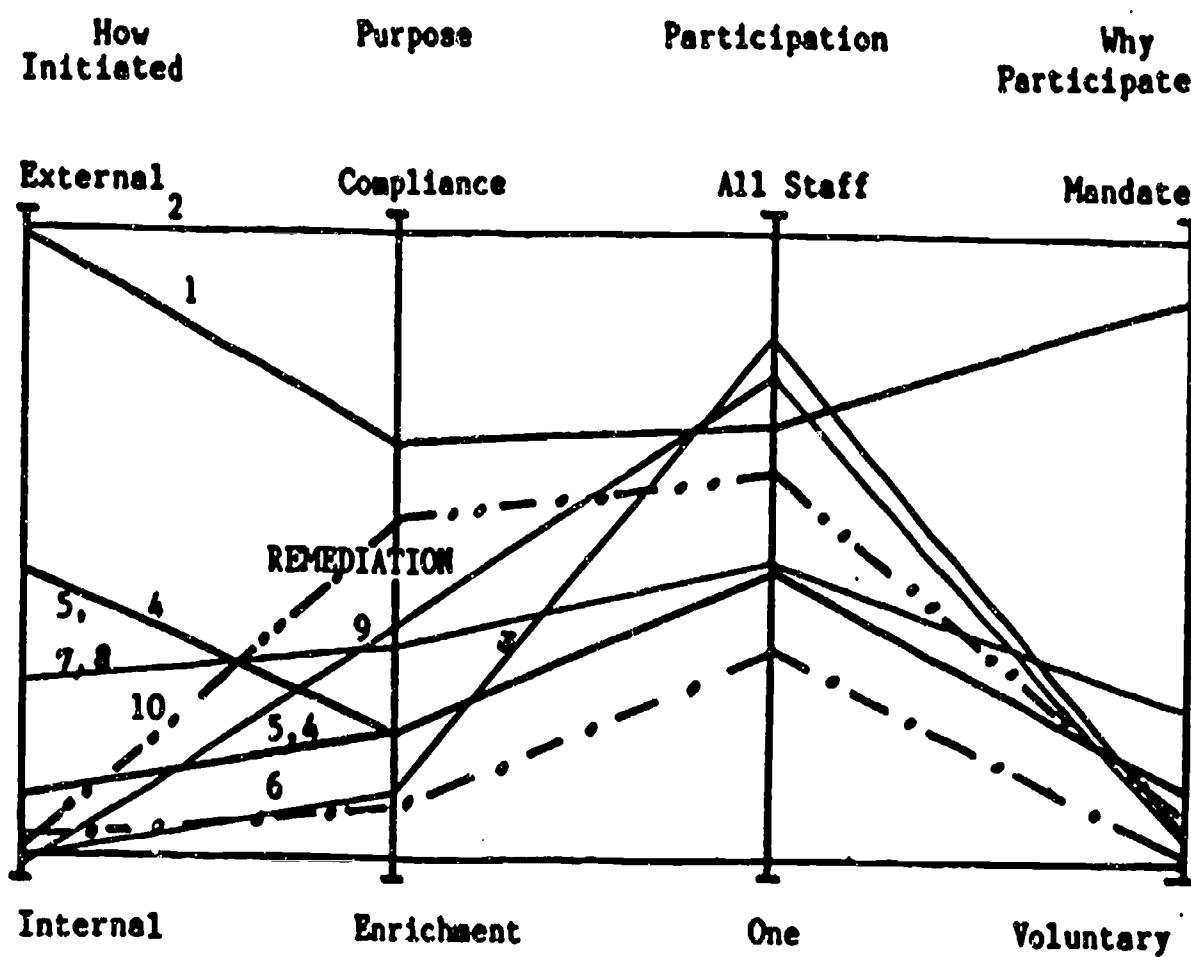
(Model developed after Fenstermacher and Berliner, 1985)

CODES

1. Division orientation inservices
2. Principals administration meetings
3. Reading curriculum guides
4. Consultations
5. Visitations
6. Division inservices for principals/teaching staff
7. Professional organization activities
8. Reading professional literature
9. Curriculum committee work-department/division
10. Observations within building

NOTE: 4 and 5 overlap

FIGURE 3
Staff Development Activity for Teachers.



CODES

1. Divisional/Department Inservices
2. Reading Curriculum Guides
3. Visitation to schools
4. Professional Conferences/Organizations
5. Professional reading
6. Curriculum Committee Work
7. Staff inschool exercises - principals/consultants
8. Consultation with principals/consultants
9. Voluntary after-school workshops
10. University/other courses

(Model developed after Fenstermacher and Berliner, 1985)

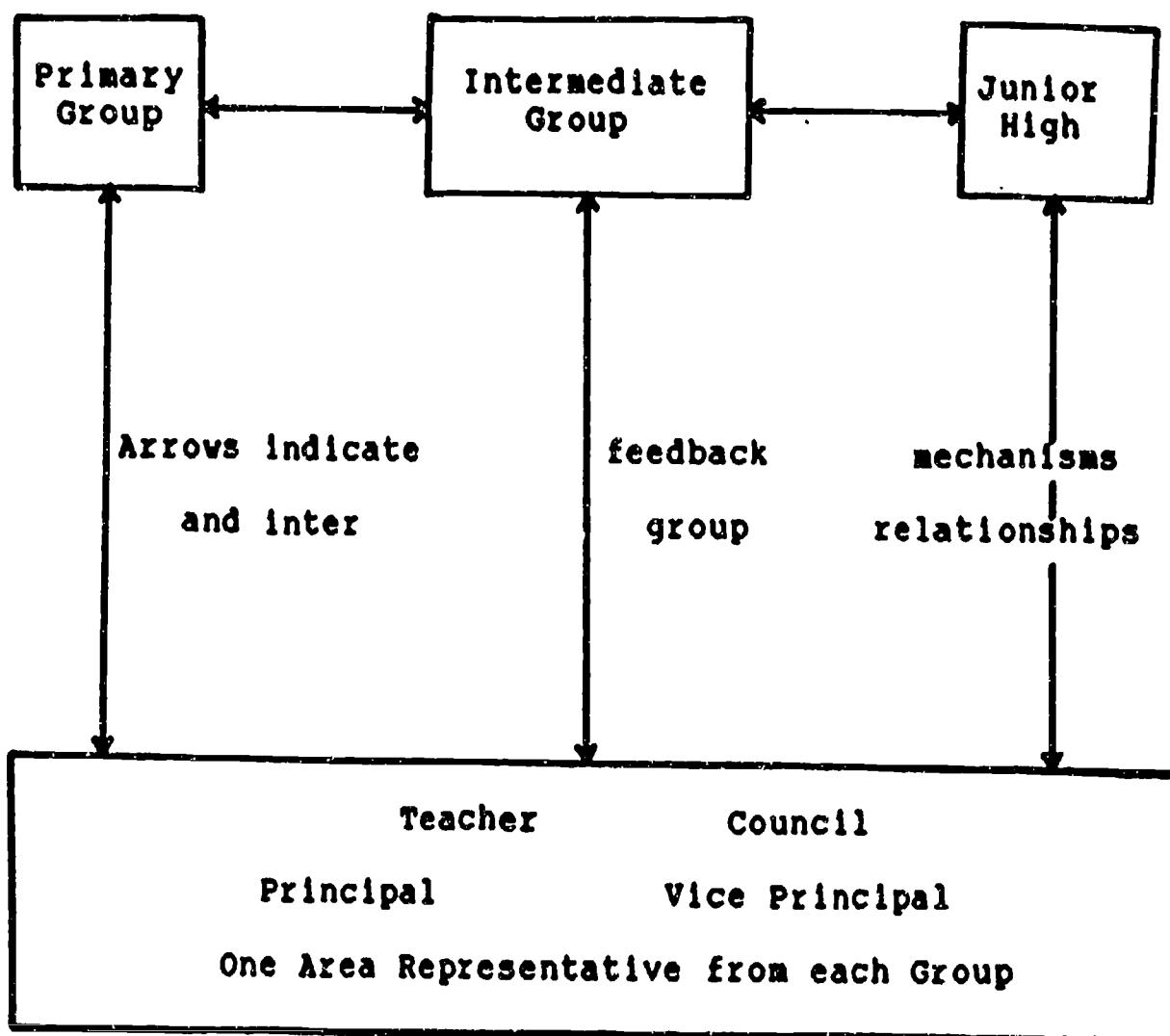
Insert Figure 4 about here

Principals often found it necessary to make discretionary decisions in order to ensure successful implementation. Occasionally, this meant agreement by principals and teachers in the infringement of organizational structures. This was an excellent example of the negotiated order found to be operating beneath the surface. Such mutually agreed to infringement resulted from the harmonious climate cultivated in the schools by principals and the fact that both principals and teachers believed that the innovative program was beneficial to the students. Weick (1982 p. 674) describing schools as loosely coupled systems stated that schools are not like other organizations and consequently "need to be managed differently".

Curricular Priorities

With the massive amounts of revised and new curricula going into the schools, principals faced a fundamental problem of how to implement all these curricula with limited budgets, limited resources, and, in some instances, staff capabilities. Structural complexity was perceived to be a major problem that affected implementation. For example, Berman and McLaughlin (1976), Clark et al. (1984), Fullan (1982), had cautioned that structural complexity was a major variable that affected implementation. Principals utilized various devices in response to the problem of structural complexity in order to accommodate these innovative curricula. They prioritized the curricula on their perception of the centralization mandate, on their own

Figure 4
Principal's Planning, Decision Making Structure



Function: Map out Strategies

- Plan Staff Meetings**
- Set Priorities and Reinforce**
- Allocate Resources**
- Dispense Information**

values, on contextual factors such as school climate, staff capabilities, staff conservatism, time availability, on environmental factors such as parental demands, socioeconomic background of the community and on the availability of resources and materials.

Curriculum prioritizing was negotiated by principals and staffs in most schools, with the English Language Arts having priority status due to its pervasive influence and transferability factor to other curricula areas as well as central support. Social Studies appeared to be the second area of prioritization. All principals, except two who claimed not to be prioritizing any of the curricula, prioritized a curriculum for implementation in a particular year. This was done primarily to focus and conserve limited financial resources for purchases of materials in that area, in that year, to ensure better implementation as intended; also prioritizing was undertaken in order to cope with the numerous curricula coming into the schools.

In the process of prioritizing, however, some principals and teachers admitted that the limited attention paid to the least prioritized curricula, for example, Art, had the tendency for lukewarm or surface implementation.

Resources

The lack of materials and resources hindered implementation efforts and often resulted in modifications of the implementation strategy and the program. In all schools,

inadequate financial resources were major inhibiting factors. Materials impacted upon implementation. Some principals modified their implementation strategies, delayed, or even abandoned some topics in response to the availability of materials. In short, material availability to quite some extent determined the course of implementation. This finding was not surprising as Clark et al. (1984), Fullan (1982), Gross et al. (1971), Leithwood and Montgomery (1982) had commented upon this type of problem.

Principals and Teachers Bargaining Practices

Principals and teachers, as well as teachers themselves, were involved in bargaining practices for the allocation of resources. This was a regular practice and operated in every school. Principals also bargained with central office for resources, making trade-offs, getting something here or giving up something there. Principals made trade-offs with staff; occasionally, certain staff members were allocated additional funds for resources but in turn had to share these with colleagues, or if they were sent on conference, on returning, they were required to provide an inservice and share their experiences with other staff. In all instances, such bargaining was mutually negotiated and geared towards implementation of the program. Principals and staffs, confronted with a radically different curricula that called for a major shift in methodology, and which, as in the case of the English Language Arts, was thought to be potentially more beneficial for

students, felt that mutually agree to infringement of organization rules was warranted. The framework of the mutually negotiated order attest to the principals determination to get the implementation through.

Curricula Integration

Five curricular characteristics - relative advantage, compatibility, trialability, observability and complexity - were found to be operating in this study. It was observed in the summary of question two above, that principals found the new curricula to be better than the old. Two of the characteristics, compatibility and complexity, were found to be operating with greater frequency mainly in the area of the English Language Arts and Computer Awareness. The biggest problem was experienced with the English Language Arts mainly because of the shift in philosophy and methodology. Berman and McLaughlin (1976) and Werner (1981) observed that where values and goals of new programs were not congruent with those of the implementors, the innovation was likely to be symbolically implemented or not implemented at all. The Computer implementation faced both physical problems with the lack of electrical outlets or limited space, and academic problems with the lack of principal or teacher expertise. However, even with the above problems, principals and teachers showed remarkable flexibility and initiative in accommodating these changes for successful implementation, notwithstanding the structural difficulties and contrary research findings reported in the

literature. Berman and McLaughlin (1976) suggested that where "structural complexity" is great, but is accompanied by strong central support, innovative programs are likely to be successful. This division did put a great deal of emphasis on the English Language Arts and Computer Awareness curricula, and this was perceived as such by principals; also, it is likely that a high sense of efficacy in the schools and belief in what they did contributed to the successful implementation.

Effects on Students and staff

The question of measurement of student effects has been problematic in the research literature. While this study focuses mainly on the process of implementation, the qualitative data provided enough information to allow an examination of student and staff effects.

Many of the characteristics, such as climate, and collegiality have been reported as having positive results in the school effects research. It is reasonable to infer that the above characteristics in this study, similarly have positive impacts; that is, students have benefited from the implementation of revised and new curricula. Flanagan's (1954) suggested the use of such a methodology, noted immediately above, in arriving at such conclusion.

All principals and teachers in this study stated quite emphatically that they felt the innovative curricula have had positive effects upon students' achievement and behavior; they appeared satisfied with the results. Students were observed to

be reading better, writing more and speaking more; they were more outgoing and assertive with improved self-concepts. Some were thought to surpass many adults in computer literacy. Observations on student effects do have a high measure of convergent validity within and across schools in this division. This factor, among others, indicates that the innovative curricula are being implemented quite successfully producing changes in student outcomes. Deep implementation was taking place, bu' to what extent needs further study. Bussis et al. (1976) noted that when educators portray deep feelings about curriculum, they are likely to transfer these feelings to students in their charge. Results from the school effects research produced similar findings. Those findings are consistent with the findings in this study in that principals feelings do influence their implementation behaviour.

CONCLUSION

The principalship has emerged as a major focus of research. An interpretive approach utilized in this study provided "thick", qualitative data that showed the principal as a crucial person in the curriculum change process, contrary to research findings that showed the principal being occupied with managerial tasks. In spite of such tasks and other constraints, the principals in this study showed great tenacity and determination in carrying through numerous innovative programs. This was, in a large measure, due to the views held by principals on the nature of education, their values and

perception of the world and their ability to translate these views into classroom practice.

Making choices with limited resources, but having a deep commitment to curriculum change, utilizing quite adeptly the expertise of other change facilitators, providing for professional development and instructional leadership, or demonstrating initiative and providing the conditions for harmonious climate through negotiations, collegial, participatory planning and decision making, principals in this study, were able to achieve a high level of implementation success. That a high measure of successful implementation was observed in this study, attest not only to the central administrative emphasis on implementation, but to the efficacy of the principalships and their views on the nature of education, their difficulties and constraints notwithstanding. Further study, however, may be required to determine whether the results from this study are generalizable to other school divisions or principals.

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APPENDIX

Research Questions

- 1) What (a) are the curricular intentions of the principal, how does s/he feel about (b) what is in place, (c) what needs to change or (d) what needs to stay the same?
- 2) How does s/he feel about the new program and how do these feelings influence the implementation process?
- 3) What is the overall strategy for implementation?
- 4) What aspects of current practice are affected?
- 5) What organizational changes are required?
- 6) What are the priorities; how are these decided; and how are they staged over time?
- 7) What resources are required? How are these obtained and allocated?
- 8) What kind of bargaining goes on between principals and teachers?
- 9) How does the new curricula fit in with other school programs?
- 10) What are the effects of the new curricula on students and staff?